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Result
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Maximum DB seq
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Listing first 45 summaries
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Perfect score:
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     Score
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     May 22, 2002, 15:37:06; Search time 13.4 Seconds (without alignments) 944.873 Million cell updates/sec
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1687
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      OLF7_RAT
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 p33267 rattus musculu 993266 mus musculu 99366 mus musculu 99426 homo sapien 99426 homo sapien 99521 homo sapien 99521 homo sapien 99521 homo sapien 99521 homo sapien 99518 homo sapien 99514 canis famil p3326 rattus norv 913606 homo sapien 995154 canis famil p3326 rattus norv 913606 homo sapien 995157 canis famil 93095150 mus musculu 99449 homo sapien 93160 homo sapien 
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OCD2_HUMAN	Ole1_HUMAN	O2C1_HUMAN	Ola1_HUMAN	OLF4_RAT	O1G1_HUMAN	OLF3_CANFA	O2J3_HUMAN	O7C2_HUMAN	O2F1_HUMAN	OAH2_HUMAN	O1F1_HUMAN
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RESULT 2

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CARBOHYD
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SEQUENCE
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modified and this statement is not removed.
                                                                                                                                        EMBL; AF065870; AAC70018
                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomics 53:56-68(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE-99005533; Pubm Buettner J.A., Glusman
                                                     InterPro; IPR000276; GPCR_Rho
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN
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Mammalia; Eutheria;
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                                                                                                                                                                                    s requires a license agreement (S
an email to license@isb-sib.ch).
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Matches 281;
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095007;
16-OCT-2001
16-OCT-2001
16-OCT-2001
SEQUENCE FROM N.A.
Bauer C., Williams D.;
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ
-!- FUNCTION: PUTATIVE ODORANT RECEPTOR.
-!- SUBCELLULAR LOCATION: Integral membrane pi
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTI
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CARBOHYD
SEQUENCE
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Multigene
                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                 NCBI_TaxID=9606;
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family;
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(Rel. 40, Last sequence update)
(Rel. 40, Last annotation update)
(Rel. 40, Last annotation receptor 7-3)
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327
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receptor; Transmembra
Olfaction.
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EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

BY SIMILARITY (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).

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N-LINKED (GLCNAC...) (POTENTIAL).

N-LINKED (GLCNAC...) (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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Best Local Similarity 56 Matches 175; Conservative
   OLF6_RAT
P23267;
01-NOV-1991
01-NOV-1991
01-JUL-1993
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50263; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Multigene family; Olfaction.
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                                                                                                                                                                                                                                                                                 KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLENPIIYCLRNQ
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an email to license@isb-sib.ch).
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7 (POTENTIAL).
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No. 5e-67;
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prints; pR00245; OLFACTORYR.
pROSITE; pS00237; G_PROTEIN_RECEP_F1_1;
pROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCRDb; GCR_0146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M64378;
PIR; C23701; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- TISSUE SPECIFICITY: OLFACTORY EPITHELIUM.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -1- FUNCTION: PUTATIVE ODORANT RECEPTOR.
-1- SUBCELLULAR LOCATION: Integral membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     basis for odor recognition. Cell 65:175-187(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Buck L., Axel R.;
"A novel multigene family may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE=91191556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10116;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olfactory receptor-like protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat)
             193
                                     131
                                                          133
                                                                                                                                                                              Local Similarity 50. nes 151; Conservative
                                                                                   75
                                                                                                         73
                                                                                                                                 15
                                                                                                                                                        13
 SCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTV
                                    LPLRYGGIMTPGLAMRLALGSWLCGFSAITVPATLIARLSFCGSRVINHFFCDISPWIVL
                                                          HPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPLLNL
                                                                                              WYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRYVAIC
                                                                                                                                FILLGFPGPRSMRIGLFLLFLVMYLLTVVGNLAIISLVGAHRCLQTPMYFFLCNLSFLEI
                                                                                                                                              FVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSFLEI
                                                                                  WFTTACVPKTLATF----APRGGVISLAGCATQMYFVFSLGCTEYFLLAVMAYDRYLAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     coupled receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                         311 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C23701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA41741.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Olfaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed=1840504;
                                                                                                                                                                                                                                                                           27
53
60
82
103
1123
142
1199
1239
2395
2395
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50.7%;
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                                                                                                                                                                                                                                         MΨ.
                                                                                                                                                                               46;
                                                                                                                                                                                                                                                                                                                                                           3 (POTENTIAL).
CYTOPLASMIC (POTENTT)
                                                                                                                                                                                         Score 788; 1
                                                                                                                                                                                                                                                                                                                                    4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL)

5 (POTENTIAL).
                                                                                                                                                                                                                                                     ВY
                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL)
N-LINKED (GLCNAC. . .)
                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (
6 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                             CYTOPLASMIC
2 (POTENTIA
                                                                                                                                                                                                                                                                                                                                                                                               2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
1 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              encode odorant receptors:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                         9E092CFE85A58BF1 CRC64;
                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F6
                                                                                                                                                                                                                                                     SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٠,
                                                                                                                                                                                          DB 1;
.8e-54;
                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL).
Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein
                                                                                                                                                                                                   Length 311;
                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      restrictions on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a molecular
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                                                                                                                                                                             Gaps
                                                          192
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                                    190
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            252
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RESULT OLIF6_MACE PA4986
DI O1-FEB DT O1-FEB D
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                                                Query Match
Best Local S
Matches 137
                                                                                                                              TRANSMEM
NON_TER
SEQUENCE
                                                                                                                                                                               TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                            G-protein
Olfaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. The use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Liver;
STRAIN-C57BL/6J; TISSUE-Liver;
MEDLINE-9325B822; PubMed-7683976;
Ressler K.J., Sullivan S.L., Buck L.B.;
"A zonal organization of odorant receptor gene olfactory epithelium.";
Cell 73:597-609(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ol-FEB-1994 (Rel. 28, Created)
Ol-FEB-1994 (Rel. 28, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
Olfactory receptor 6 (M50) (Fragment).
                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                            TRANSMEM
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                                                                                                                                                                                                                                                                                              TRANSMEM
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                                                                                                                                                                                                                                                                                                                                           NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- TISSUE SPECIFICITY: OLFACTORY EPITHELIUM.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P34986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OLF6_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           251
                                                Local Similarity nes 137; Conser
                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: PUTATIVE ODORANT RECEPTOR.
FFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           o; GCR_0714; ~.
MGI:104713; Olfr6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В40745; В40745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collaboration - sen the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLENPIIYCLRNQDVKRALRRTL 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLIWYGSTIFLHVRTSVESSLDLTKAITVLNTIVTPVLNPFIYTLRNKDVKEALRRTV 308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L14567;
                                                                                                                                                                                                                                                                                                                                                                                                                            PF00001;
                                                                                                                                                                                                                                                                                                                                                                                     PS00237; G_PROTEIN_RECEP_F1_1; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                    IPR000276; GPCR_Rhodpsn
0001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Metazoa;
                                                  Conservative
                                                                                                                                               1
20
20
41
61
80
99
137
160
177
201
213
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19
40
60
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98
136
159
176
200
212
>222
                                                                                                                                                                                                                                                                                                                                                                           receptor;
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Rodentia;
                                                                                                                                24748 MW;
                                                                44.5%;
                                                36;
                                                                                                                                                         2 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

3 (POTENTIAL).

4 (POTENTIAL).

4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                           Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                7235CEDDDDE43BE7 CRC64;
                                                ed. No. 3e-5
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (See http://www.isb-sib.ch/announce/
                                                                 3e-51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     There are no rest
                                                                                DB
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                                                                                                                                                                                                                                                                                                                                                                        Multigene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Usage
                                                47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                expression
                                                                           Length
                                                Indels
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                                                                                                                                                                                                                                                                                                                                                                          family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     restrictions
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                                                Gaps
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no
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RESULT 6
                                                         TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                           G-protein
Multigene
                                                                                                                                                                                                                                                                                          EMBL; AF321237; AAG45206.1; -. EMBL; AF324499; AAL33005.1; -. InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lane K.P., Cutforth T., Young J., Athanasiou M., Friedman C., Rowen L., Evans G., Axel R., Hood L., Trask B.J.;
"Genomic analysis of orthologous mouse and human olfactory receptor loci indicates cluster stability yet minimal conservation beyond the cooding sequence.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-OCT-2001 (Rel. 40, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation update)
01factory receptor 10A5 (HP3) (Putative taste
                                                                                                                                                                                                              Pfam; PF00001; 7tm_1; 1.

PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; PR05ITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                        or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
Lane R.P., Cutforth T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORlUAD.
Homo sapiens (Human).
Homo sapiens (Human).
Chordata;
    DOMAIN
                      TRANSMEM
                                             DOMAIN
                                                                                                                    DOMAIN
                                                                                                                                         TRANSMEM
                                                                                                                                                           DOMAIN

    -!- SUBCELLULAR LOCATION: Integral membrane protein.
    -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaudin J.C., Breuils L., Haertle T.,
"New GPCRs from a human lingual cDNA library.",
Chem. Senses 26:1157-1166(2001).
-!- FUNCTION: PUTATIVE ODORANT RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaudin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Tongue;
MEDLINE=21562400; PubMed=11705801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (NOV-2000) [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9H2O7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AFSTCASHLTVVVIFYTAVIFMYVRPRAIASFNSNKLISAIYAV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AMAYDRYVAICWPLRYPVMMTTGFCVQLTISSWVSGFTISMAKVYFLSRVAFCGNNVLNH
                                                                                                                                                                             family;
                                                                                                                                                                                                  coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Rel. 40, Created)
(Rel. 40, Last sequence up
(Rel. 41, Last annotation
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51
59
81
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                                                                                                                                                                           receptor; Transmembrane; Olfaction.
                                                                                                                                                                                                                                                                                                                                                                                              a license agreement (See http://www.isb-sib.ch/announce/
  26
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121
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140
159
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CYTOPLASMIC (PO
4 (POTENTIAL).
EXTRACELLULAR
                                                         CYTOLISMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
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                                        (POTENTIAL).
                                                                                                                                                                                                Glycoprotein;
  (POTENTIAL)
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RESULT
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Best Local
                                                                                                                                     O5V1_HUMAN
Q9UGF6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                       This
                                                                                                                                                                                                                                                                         16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation
01factory receptor 5V1 (Hs6M1-21).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
Pfam; PF00001; 7 PRINTS; PR00237;
                   EMBL; AL096770; CAB65797.1;
InterPro; IPR000276; GPCR_R
                                                                            modified
                                                                                                  the
                                                                                                              between
                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                          Homo sapiens
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mes 142; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 VSEFVLLGFPA-PAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                   s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                  TLH
                                                                                                                                                                                                                                                                                                                                                                                             TFH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FLEIGENLVIVEKMLGTLLAQDTT----ISFLGCATQMXFFFFFGVAECFLLATMAYDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                          HLLVVSLFYISSSLTYFWPKSNNSPESKKLLSLSYTVVTPMLNPIIYSLRNSEVKNALSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VLKLVCADTALFEIYAIVGTILVVMIPCLLILCSYTRIAAAILKIPSAKGKHKAFSTCSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VAICSPLHYPVIMNQRTRAKLAAASWFPGFPVATVQTTWLFSFPFCGTNKVNHFFCDSPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHEFCDVSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISEFILMSFSSLPTEIQSLLFLTFLTIYLVTLKGNSLIILVTLADPMLHSPMYFFLRNLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            HLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCAS
                                                     an
                                                  and this statement is not removed requires a license agreement (See an email to license@isb-sib.ch).
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221
238
261
274
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98
                                                                                                                                                                                                                                                         (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
          7tm_1;
                                                                                                                                                                                                                                                                                                                                      STANDARD;
GPCRRHODOPSN
                                                                                                                                                                                                                                    Chordata;
Primates;
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237
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                GPCR_Rhodpsn.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

BY SIMILARITY.

N-LINKED (GLCNAC. . . ) (POTINGED (GLCNAC. . . . ) (POTINGED (GLCNAC. . . ) (POTINGE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 719.5; DB 1
Pred. No. 1.1e-48;
                                                                                                                                                                                                                                   Craniata; V
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                       on update)
                                                                                                                                                                                                                                                                                                                                      321
                                                               (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                            Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                    Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108;
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                                                                          Usage
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                                                                                                                                                                                                                                     Homo
                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        317;
                                                                            for
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                                                                            commercial
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RESULT 8
OAA4_HUMAN
ID OAA4, FOR
ID OAA4
ID OAA4
ID OAA5
ID OFFICE
IN OFFICE
IN ORIGINA
OS HOMO S
OC EUKARY
OC Mammal
OX NCBL T
RN [1]
RP SEQUEN
RA Lane R
RA FOWEN
RA Lane R
RA ROWEN
RA Lane R
RA ROWEN
RA COGLING
RI OCILIA
RI COCLING
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
DISULFID
            Lane R.P., Cutforth T., Young J., Athanasiou M., Friedman C., Rowen L., Evans G., Axel R., Hood L., Trask B.J.; "Genomic analysis of orthologous mouse and human olfactory receptor "Gloci indicates cluster stability yet minimal conservation beyond the
                                                                                                                                                                                                                                                               16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation updat
                                                                                                                                                                                                                                                                                                          Q9H2O9;
16-OCT-2001
                                                                           SEQUENCE FROM N.A.
Lane R.P., Cutforth
                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                             OR10A4.
                                                                                                                                                                                                                                              Olfactory receptor 10A4
                                                                                                                                                                                                                                                                                                                                                     OAA4_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KAFSTCASHLAIVFLFYGSAIFTYVRPISTYSLKKDRLVSVLYSVVTPMLNPIIYTLRNK
sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; PS00237;
; PS50262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
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                                                                                                                                                                                                                                                                                                                                                       STANDARD;
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G_PROTEIN_RECEP_F1_2; 1.
receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor;
Olfaction.
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57
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1100
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2219
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272
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272
                                                                                                                                                              Chordata;
Primates;
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45.9%;
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                                                                                                                                                                                                                                              (HP2)
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CYTOPLASMIC (POTENTIAL)
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3 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

4 (POTENTIAL).

5 (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
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Pred. No. 4.7e
56; Mismatches
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Catarrhini;
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No. 4.7
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i; Hominidae; Homo.
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1.7e-48;
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Multigene family; Olfaction.
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modified and this statement is not removed.
entitles requires a license agreement (See )
or send an email to license@isb-sib.ch).
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-i- SUBCELLULAR LOCATION: Integral membrane protein.
-i- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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Pro; IPR000276; GPCR_Rhodpsn.
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Pred. No. 5.5e
47; Mismatches
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BY SIMILARITY.
N-LINKED (GLCN
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5.5e-48;
hes 109;
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01-MAR-2002 (Rel. 41, Created)
01-MAR-2002 (Rel. 41, Last sequence update)
01-MAR-2002 (Rel. 41, Last annotation updat
01factory receptor 10C1 (Hs6M1-17).
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TRANSMEM
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DOMAIN
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use by non-profit institutions as content
modified and this statement is not removed. Usage by ar
entities requires a license agreement (See http://www.isb
or send an email to license@isb-sib.ch).
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Multigene family; Olfaction.
                                                                                                                                                                                                                                                                                                    SEQUENCE
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-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
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theria; Primates; Catarrhini; Hominidae; Homo.
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CYTOPLASMIC (FOTENTIAL)
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Pred. No. 7.1e-48;
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BY SIMILARITY
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EXTRACELLULAR (POTENTIAL)
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O9GZK7; O9GZK8;
16-OCT-2001 (Rel. 40, Last
16-OCT-2001 (Rel. 40, Last
01-MAR-2002 (Rel. 41, Last
                                                                                                                   TRANSMEM
DOMAIN
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PROSITE;
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Major histocompatibility comp
pp.110-130, Springer-Verlag,
[2]
                      TRANSMEM
DOMAIN
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EMBL;
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Mammalia; Eutheria;
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DOMAIN
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Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (
or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long a modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (AUG-2001) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Whitaker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Volz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ziegler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
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                                                                                                                                                                                                                                                                                                                                L; AJ302614; CAC20534.1; -...
L; AJ302615; CAC20535.1; -...
L; AJ302617; CAC20537.1; -...
L; AJ302617; CAC20537.1; -...
L; AJ302619; CAC20539.1; -...
L; AJ302619; CAC20540.1; -...
L; AJ302620; CAC20541.1; -...
L; AJ302621; CAC20541.1; -...
L; AJ302623; CAC20543.1; -...
L; AJ302623; CAC20543.1; -...
L; AJ302623; CAC20543.1; -...
L; AJ302633; CAC20543.1; -...
L; AL302633; CAC20543.1; -...
L; AL302633; CAC20543.1; -...
L; AL302633; CAC20543.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EN European Bioinformatics Institute. There are no restroy by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Integral membrane protein. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION:
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                                                                                                                                                                                                                                                                           PR00237; GPCRRHODOPSN
                                                                                                                                                                                                                  PS50262;
n coupled
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                                                                                                                                                                                                                                                         PS00237;
                                                                                                                                                                                  family;
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Olfaction;
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                                                                                                                                                                                                                G_PROTEIN_RECEP_F1_1; 1.
G_PROTEIN_RECEP_F1_2; 1.
receptor; Transmembrane;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Primates;
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Last annotation updat
Al (Hs6M1-18).
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  4 (POTENTIAL).
EXTRACELLULAR
5 (POTENTIAL).
                                                                                                                                                                            Polymorphism.
EXTRACELLULAR
                                                            CYTOPLASMIC
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3 (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (See http://www.isb-sib.ch/announce,
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16-OCT-2001
16-OCT-2001
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                                                                                                                                                                                                                                                                             Chromosome 11...

Genomics 53:56-68(1998).

Genomics 53:50-68(1998).

Genomics 53:50-68(1998).
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Mammalia; Eutheria; Primates;
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                                                       use by non-profit institutions as long a modified and this statement is not removed.
                                                                                                                 the European Bioinformatics Institute.
                                                                                                                                                                                                                                  -!- FUNCTION: PUTATIVE ODORANT RECEPTOR.-!- SUBCELLULAR LOCATION: Integral membrane protein.-!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 68-283 FROM N.A. MEDLINE=99005533; PubMed=9787077;
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Buettner J.A., Glusman G.,
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                                                                         SWISS-PROT entry is copyright. It is produced through a collable of the Swiss Institute of Bioinformatics and the EMBL outst European Bioinformatics Institute. There are no restrictions in the swiss i
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VGLACSDPRVAQVTTLILSVFCLTIPFGLILTSYARIVVAVLRVPAGASRRRAFSTCSSH
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Ben-Arie N.,
                           is not removed. Usage by and for commercial agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                of olfactory
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Pred. No. 5.5e-47;
1; Mismatches 108;
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7 (POTENTIAL)
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A -> T (IN 6M1-18*02).
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0448A2166A301387 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Catarrhini;
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Best Local Similarity
Matches 136; Conser
                      Homo sapiens (Human).
Eukaryota; Metazoa; Cl
Mammalia; Eutheria; P:
NCBI_TaxID=9606;
                                                              O2H3_HUMAN STANDARD; PRT; 316 AA. Q15062; Q1-007-1997 (Rel. 35, Created) 16-OCT-2001 (Rel. 40, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Olfactory receptor 2H3 (Olfactory receptor-like ORZH3 OR OLFRZ OR FATI1.
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Pfam; PF0
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; FAI
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane;
Multigene family; Olfaction.
    SEQUENCE
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    FROM
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Primates;
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3 (POTENTIAL).

4 (POTENTIAL).

4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

5 (POTENTIAL).

6 (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

1 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

BY SIMILARITY.

N-LIKED (GLCNAC...) (POTENTIAL).

MW; C14A9A35CD76E3A3 CRC64;
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1 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

2 (POTENTIAL).
                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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No. 2.7
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2.7e-46;
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CONFLICT
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EMBL;
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                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane;

Multigene family; Olfaction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genomics 27:119-123(1995).
[2]
[2]
SEQUENCE OF 10-312 FROM N.A., AND VARIANTS S-30; V-4
MEDLINE=20341390; PubMed=10880742;
Eklund A.C., Belchak M.M., Lapidos K., Raha-Chowdhur
"Polymorphisms in the HLA-linked olfactory receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fan W., Liu Y.-C., Parimou s., "current" Olfactory receptor-like genes are located histocompatibility complex."; Genomics 27:119-123(1995).
                                                                                                                                                                                                                                                               DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                  VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
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L; AF211939; AAF98751.1; -.
L; AF211940; AAF98752.1; -.
L; AF211941; AAF98753.1; -.
L; AF211942; AAF98754.1; -.
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PUTATIVE ODORANT
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CYTOPLASMIC (P.
2 (POTENTY
                                                                   /FTId=VAR_010229.

E -> G (IN REF. 1).

V -> D (IN REF. 1).

F -> I (IN REF. 1).

P -> T (IN REF. 1).

V -> A (IN REF. 1).
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CYTOPLASMIC (P
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Best Local
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O2B2_HUMAN STANDARD; PRT; 357 AA.

O9GZK3; O9GZL2; O9Y299;

16-OCT-2001 (Rel. 40, Created)

16-OCT-2001 (Rel. 40, Last sequence update)

16-OCT-2001 (Rel. 40, Last annotation update)

Olfactory receptor 2B2 (Olfactory receptor 6-1) (OR6-1) (Hs6M1-10).
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                                        the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                           Wild
                                                                                                                                                                                                            Submitted (DEC-1997)
                                                                                                                                                                                                                                                         pp.110-130,
[2]
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Major histocompatibility complex-evolution, structure,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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                                                                                                                                                           FUNCTION: PUTATIVE ODORANT RECEPTOR.
SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                      SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way field and this statement is not removed. Usage by and for commercial
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A., Younger R., Beck S.;
ymorphic olfactory receptor genes and
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AJ302585;
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316 /
                                                                                                                                                                                                                                         1-310 FROM N.A.
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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AJ302587; CAC20507.1;
L; AJ302588; CAC20508.1;
L; AJ302589; CAC20509.1;
L; AJ302589; CAC20510.1;
L; AJ302590; CAC20510.1;
L; AJ302592; CAC20511.1;
L; AJ302592; CAC20512.1;
L; AJ302592; CAC20512.1;
L; AJ302593; CAC20513.1;
L; AJ302593; CAC20593; C
     sapiens (Human)
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family; Olfaction; Polymorphism.
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2 (Hs6M1-12).
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6 (POTENTIAL).
EXTRACELLULAR (
7 (POTENTIAL).
CYTOPLASMIC (PO
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Pfam; PF00001; 7tm_1; 1.

PRINTS; PR00237; GPCRHDODDSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Multigene family; Olfaction.
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DOMAIN
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    -i- SUBCELLULAR LOCATION: Integral membrane protein.
    -i- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS

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Mammalia; Eutheria;
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                SCTDMSTAELTDEVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTV
                                                                                                                          HPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPLLNL
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VTLFYSSVIAVYLQPKNPYAQERGKFFGLFYAVGTPSLNPLIYTLRNKEVTRAFRRLL
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P58173; Q9H
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PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-OCT 2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
01factory receptor 2B6 (Hs6M1-32) (Offactory
                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a between the Swiss Institute of Bioinformatics and the EMBI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. Williams S.;
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Mammalia; Eutheria;
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                                                            AICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPL
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           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993
C;Accession: F23701
R;Buck, L; Axel, R.
Cell 65, 175-187, 1991
A;Title: A novel multigene family may encode odoran A;Reference number: A23701; MUID:91191556
A;Accession: F23701
A;Status: nucleic acid sequence not shown
olfactory receptor F6 - rat
C;Species: Rattus norvegicus (Norway rat)
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odorant receptor

ALIGNMENTS

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#text_change

26-Aug-1999

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A; Molecule type: mRNA
A; Residues: 1-327 <BUCA
A; Cross-references: GB:M64386; NID:g205833; PIDN:AAA41
C; Superfamily: Olfactory receptor OR14
C; Keywords: G protein-coupled receptor; transmembrane
                                                                          241 KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
                                                                                                                                                                                                                                                                                                       DVKRALRRTLHLAQDQEANTNKGSKIG 327
                                                                                                                                                                                                   AVMAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTIN
                                                                                                                                                                                                                                          DVKRALRRTLHLAQDQEANTNKGSKIG
                                                            KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
                                                                                                                                     HFFCDVSPLLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRH
                                                                                                                                                                                   AVMAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTIN
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odorant receptor (clone K18) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: 22-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 26-C;Accession: B40745
C;Accession: B40745
R;Ressler, K.J.; Sullivan, S.L.; Buck, L.B.
Cell 73, 597-609, 1993
A;Title: A zonal organization of odorant receptor gene expression i A;Reference number: A40745; MUID:93258822
A;Accession: B40745
A;Accession: B40745
A;Status: preliminary; not compared with conceptual translation A;Molecule type: nucleic acid
A;Residues: 1-222 <RES>
A;Cross-references: GB:L14567; NID:9293755; PIDN:AAA39851.1; PID:92
A;Note: sequence extracted from NCBI backbone (NCBIP:131748)
C;Superimental source: olfactory epithelium
A;Note: sequence extracted from NCBI backbone (NCBIP:131748)
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_C;Accession: C23701
R;Buck, L.; Axel, R.
Cell 65, 175-187, 1991
A;Title: A novel multigene family may encode odorant rece A;Reference number: A23701; MUID:91191556
A;Accession: C23701
A;Status: nucleic acid sequence not shown A;Molecule type: mRNA A;Residues: 1-311 <BUC>
A;Cross-references: GB:M64378; NID:9205817; PIDN:AAA41741
C;Superfamily: Olfactory receptor OR14
C;Keywords: G protein-coupled receptor; transmembrane pro
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                                                                                                   FFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VLIWYGSTIFLHVRTSVESSLDLTKAITVLNTIVTPVLNPFIYTLRNKDVKEALRRTV
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                                                                                YFLSTMSFLEAWYISVTVPKMLAGFL----FHPNTISFLGCMTQLYFFMSLACTECVLLA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LPLRYGGIMTPGLAMRLALGSWLCGFSAITVPATLIARLSFCGSRVINHFFCDISPWIVL
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AMAYDRYVAICWPLRYPVMMTTGFCVQLTISSWVSGFTISMAKVYFLSRVAFCGNNVLNH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTV 252
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #sequence_revision 22-Jan-1993 #text_change 26-Aug-1999
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50.7%;
                                                                                                                                                                             44.5%;
61.2%;
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No. 5.4e-62;
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chemoreceptor TB641 - rat C;Species: Rattus norvegicus (Norway ra C;Date: 20-Feb-1997 #sequence_revision C;Accession: JC5202; PC4304

rat)

27-Feb-1997

#text_change

R; Thomas, M.B.; Haines, S.L.; Gene 178, 1-5, 1996

Chemoreceptors

expressed

'n

taste,

olfactory and

male

reproductive

tissues

Akeson, R.A.

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olfactory receptor-like protein 2 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 05-Mar-1998 #sequence_revision 13-Mar-1998
C;Accession: JC5836
R;Blache, P.; Gros, L.; Salazar, G.; Bataille, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:AF029357; NID:g2570934; PIDN:AA(C;Comment: This protein is implicated in white cell mulc;Superfamily: olfactory receptor OR14 F;28-53/Domain: transmembrane #status predicted <TM1>F;28-53/Domain: transmembrane #status predicted <TM2>F;64-86/Domain: transmembrane #status predicted <TM3>F;95-123/Domain: transmembrane #status predicted <TM3-F;95-123/Domain: transmembrane #status predicted <TM3-F;95-123/Domain: transmembrane #status predicted <TM3-F;95-123/D
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
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KGAFMKVL
                                                                  KRALRRTL
                                                                                                                                        FSTCASHITVVTMFYGPAMVMYMRPGSWYDPERDKKLALFYNVVSAFLNPIIYSLRNKDV
                                                                                                                                                                                                              FSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDV
                                                                                                                                                                                                                                                                                     FCEVPAVLKLACADTSFNDRLDFILGFVLLLVPLSLILASYACIFVSILRIRSSQGRLKS
                                                                                                                                                                                                                                                                                                                             FCDVSPLLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKA
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Pred. No. 3.2e-51;
9; Mismatches 110
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A; Accession: PC4304
A; Status: preliminary
A; Molecule type: protein
A; Residues: 145-153; 245-253 <THO2>
A; Experimental source: taste bud
C; Comment: This protein is coupled to
C; Genetics:
                                                                                                                                R;Buck, L.; Axel, R.
cell 65, 175-187, 1991
A;Title: A novel multigene family may encode
A;Reference number: A23701; MUID:91191556
A;Accession: B23701
                               A; Cross-references: GB:M64377
C; Superfamily: olfactory receptor OR14
C; Keywords: G protein-coupled receptor
                                                                                 A;Status: nucleic acid sequence
A;Molecule type: mRNA
A;Residues: 1-313 <BUC>
                                                                                                                                                                                                C:Species: Rattus norvegicus (Norway rat)
C:Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change
C:Accession: B23701
R:Buck, L: Axel, R.
R:Buck, L: Axel, R.
                                                                                                                                                                                                                                                                  RESULT 6
B23701
Olfactory receptor F5 -
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F;106-125/Domain: transmembrane #status predicted <TM3>
F;145-169/Domain: transmembrane #status predicted <TM4>
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C; Superfamily: olfacto:
C; Keywords: olfaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Reference number: JC5200; MUID:97080538
A;Accession: JC5202
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-318 <THO1>
A;Cross-references: GB:U50949; NID:g1256392; PIDN:AAC52911.1; PID:g1256393
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EVDYFFCDIPAVLRLACADTAINELVTFVDIGVVAASCFLLILL-----SYANIVHA
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42.3%;
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#status predicted <TM7>
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                                                                                                                    not shown
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Pred. No. 1.8e-50;
6; Mismatches 101;
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                                  transmembrane
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C; Genetics:
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A;Molecule type: mRNA
A;Residues: 1-316 <FAN>
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VIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRRTLHL
                                                                   SCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTV
                                                                                                                OPLHYATIIHPRLCWQLASVAWVIGLVGSVVQTPSTLHLPFCPDRQVDDFVCEVPALIRL
                                                                                                                                     HPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPLLNL
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                                                SCEDTSYNEIQVAVASVFILVVPLSLILVSYGAITWAVLRINSATAWRKAFGTCSSHLTV
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A;Gene: GDB:FATI1; OLFR2
A;Cross-references: GDB:1323249; OMIM:600578
A;Map position: 6521.3-6521.3
C;Superfamily: Olfactory receptor OR14
                                                                                                                                                                                                                                                                                                                        A; Title: Olfactory receptor-like genes are located A; Reference number: A57069; MUID: 95394447 A; Accession: A57069
                                                                                                                                                                                                                                                                                                                                                                                      R:Fan, W.; Liu, Y.C.; Parimoo, S.; Weissman, S. Genomics 27, 119-123, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                            olfactory receptor FAT11 - C; Species: Homo sapiens (ma C; Date: 03-Oct-1995 #sequer C; Accession: A57069
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Best Local
13 FVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSFLEI
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                                          Conservative
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45.2%; Pred.
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Pred. No. 2.2e-50;
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                                        DB 2; I
3.2e-50;
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245 252 132

69

253

236

296

116

60

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RESULT 9
S29711
Olfactory factor OR37 - rat
C:Species: Rattus norvegicus (Norway rat)
C:Date: 25-Feb-1994 #sequence_revision 10-Nov-1995
C:Accession: S29711
R:Raming, K:, Krieger, J.; Strotmann, J.; Boekhoff,
Rature 361, 353-356, 1993
                                                                                                                                       A;Title: Cioning and expression of odorant receptors. A;Reference number: S29707; MUID:93149273
A;Accession: S29711
A;Molecule type: mRNA
A;Residues: 1-305 <RAM>
C;Superfamily: olfactory receptor OR14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8

A46247

olfactory receptor OR3 - mouse
c:Species: Mus musculus (house mouse)
c:Date: 22-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 26-Aug-1999
C:Accession: A46247
R.Nef, P.; Hermans-Borgmeyer, I.; Artieres-Pin, H.; Beasley, L.; Dionne, V.E.;
Proc. Natl. Acad. Sci. U.S.A. 89, 8948-8952, 1992
A:Title: Spatial pattern of receptor expression in the olfactory epithelium.
A:Reference number: A46247; MUID:93028384
A:Status: preliminary; not compared with conceptual translation
A:Rolecule type: nucleic acid
A:Residues: 1-312 <NEFY
                   VΩ
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Best Local Similarity
Matches 133; Conserv
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28; Conservative
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                                                      Conservative
                                                                      38.1%;
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43.0%;
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                                                  Score 642; DB 2,
Pred. No. 4e-49;
57; Mismatches 10
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Pred. No. 2.7e-49;
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                                                                                                                                                                                                                                                                  Boekhoff,
                                                                                      DB 2;
                                                      103;
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   RESULT
S20573
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$20571
Olfactory receptor - dog
C:Species: Canis lupus familiaris (dog)
C:Date: 22-Nov-1993 #sequence_revision
C:Accession: $20571
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A;Accession: S20571
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A; Residues: 1-313 <PAR>
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Gaps

2

249

303

189 124 129 68

183

A.; Eggerickx,

D

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Olfactory receptor - human
C;Species: Homo sapiens (man)
C;Date: 22-Nov.1993 #sequence_revision 10-Nov-1995 #text_change 26-Aug-1999
C;Accession: S20573
R;Parmentier, M.; Libert, F.; Schurmans, S.; Schiffmann, S.; Lefort, A.; Eggerickx, D.;
Nature 355, 453-455, 1992
A;Title: Expression of members of the putative olfactory receptor gene family in mammal:
A;Reference number: S20571; MUID:92131132
A;Accession: S20573
A;Status: prellminary
A;Molecule type: nucleic acid
A;Residues: 1-320 <PARD
A;Cross-references: EMBL:X64995; NID:g32092; PIDN:CAA46128.1; PID:g32093
C;Superfamily: olfactory receptor OR14
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                       A37286
A37286
Olfactory receptor I15 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change
C;Accession: A37286
R;Buck, L.; Axel, R.
Cell 65, 175-187, 1991
A;Rritle: A novel multigene family may encode odorant receptors: A;Reference number: A23701; MUID:91191556
A;Accession: A37286
                                                                                                                                                A;Cross-references: GB:M64392; NID:g205845; PIDN:AAA41755.1; PID:g205846 C;Superfamily: olfactory receptor OR14 C;Keywords: G protein-coupled receptor; transmembrane protein
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                 ISQFLLLFLPIPSEHQHVFYALFLSMYLTTVLGNLIIILIHLDSHLHTPMYLFLSNLSF
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                                                                         Score 635; DB 2;
Pred. No. 1.7e-48;
9; Mismatches 112;
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Pred. No. 1.4e-48;
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C; Species: Rattus norvegicus
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olfactory receptor I14 - rat (Species: Rattus norvegicus (Norway rat) ($2-Jan-1993 #sequence_revision 22-Jan-1993 #text_change (Accession: I23701 R.Buck, L.; Axel, R.
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A;Title: A novel multigene family may encode odorant r
A;Reference number: A23701; MUID:91191556
A;Accession: I23701
A;Status: nucleic acid sequence not shown
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-312 <BUC>
A;Residues: 1-312 <BUC>
A;Cross references: GB:M64391; NID:g205843; PIDN:AAA41
C;Superfamily: olfactory receptor OR14
C;Keywords: G protein-coupled receptor; transmembrane
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nes 124; Conserv
                                            ALRRTL 310
                                                                                                                        TCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKR 304
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                                                                                              TCGSHLSVVTLFYGTIFGIYLCPSGNNSTVKEIAMAMMYTVVTPMLNPFIYSLRNRDMKR
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Pred. No. 1.3e
62; Mismatches
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(Norway rat)

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R?Thomas, M.B.; Halnes, S.L.; Akeson, R.A.
Gene 178, 1-5, 1996
A:Title: Chemoreceptors expressed in taste, ol
A:Reference number: JC5200; MUID:97080538
A:Recession: JC5200
A:Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-311 <TH01>
A:Cross-references: GB:U50947; NID:g1256388; FA:Accession: PC4302
A:Status: preliminary
A:Molecule type: Drotein
A:Residues: 146-153;265-272 <TH02>
A:Experimental source: taste bud
C:Comment: This protein is coupled to a GTP-bi
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C;Date: 27-Feb-1997 #sequence_revision 27-Feb-1997
C;Accession: JC5200; PC4302
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Eur. J
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A; Residues: 1-309 <GA2>
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A; Accession: S47014
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A; Residues: 1-309 <GAT>
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C;Genetics:
A;Gene: tb334
C;Superfamily: olfactory receptor OR14
C;Keywords: olfaction; taste bud; transmembrane protein
C;Keywords: olfaction; taste bud; transmembrane protein
F;24-47/Domain: transmembrane #status predicted <TM2>
F;56-77/Domain: transmembrane #status predicted <TM3>
F;138-162/Domain: transmembrane #status predicted <TM4>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 36.9
Best Local Similarity 43.1
Matches 131; Conservative
  300
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                                             307 RRTL 310
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                                                                                                                                                                                                                                                                                                                     130
                                                                                                                                                                                    183 MKLSCSDTHVNEL---VLSGFGGTVLMVPFVSIVISYVHIVFAVLRIQSSGGSSKAFSTC
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KRLL
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                                                                                                                                    ASHLTVVIIEYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRAL
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                                                                                                                                                                                                                                                                        AICHPLHYSTIMNARICVLMLILCWILTNVVALTHTLLMARLSFCVVGEIAHFFCDVTSV 182
                                                                                                                                                                                                                                                                                                                   AICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPL
                                                                                                                                                                                                                                                                                                                                                                   ADMGLISSTVTKMLF----NVQTQCHTISYTGCLTQMYLFMMFGDLDSFFLAVMAYDRYV
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                                                                                        SSHLCVVCVFYGTLFSVYLFPSSVETTEKDVAAAAMYTVVTPMLNPFIYSLRNKDIKGAL
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Pred. No. 1.9e-47;
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Search completed: May Job time: 547 sec 22, 2002, 15:40:44

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Title:
Perfect score:
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   Score
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1: /cgn2_6/ptodata/2,

2: /cgn2_6/ptodata/2,

3: /cgn2_6/ptodata/2,

4: /cgn2_6/ptodata/2,

5: /cgn2_6/ptodata/2,

6: /cgn2_6/ptodata/2,
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 Maximum Match 100%
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/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
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/cgn2_6/ptodata/2/iaa/B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/backfiles1.pep:*
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US-08-748-506-18
US-08-748-506-19
US-08-748-506-10
US-08-748-506-11
US-08-748-506-12
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US-08-748-506-13
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US-08-827-291A-2
US-08-8118-270-69
PCT-US93-08528-60
US-08-8118-270-69
PCT-US93-08528-60
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11, Appl
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	n US/08118270 Randall B.	5 Applicatio 08384 RMATION: Murphy,	25.00	SULT 1 5-08-118-27 5-08-118-27 Sequence 6 Patent No. GENERAL I GENERAL I APPLICA
	ALIGNMENTS			
2, Appl	20 1 US-08-465-980-2	23.5 320	396	45
Sequence 527, App	4		407	44
64,	5 PCT-U	.9	437	43
	_	.9	437	42
66,	σ	.0	456	41
66,	1 US-08-118-270-6	.0	456	40
27,		. 7	467	39
27,		. 7	467	38
63,		. 4	496	37
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68,	٠.	29.5 277	498.5	3 5
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Sequence 3, Appli	247 1 US-08-465-980-3	N)	514	28

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COMPUTER: IBM PC FOR SELLING
COMPACTING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/118,270
FILING DATE: 09-SEP-1993
PRIOR APPLICATION NUMBER: US 07/943,236
FILING DATE: 10-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: TOWNSEND, KEVIN G.
REGISTRATION NUMBER: 34,033
REFERENCE/DOCKET NUMBER: MURPHY=2A
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
TELEFAX: 202-737-3528
TELEFAX: 202-737-3528
TELEFAX: 248633
INFORMATION FOR SEQ ID NO: 65:
SEQUENCE CHARACTERISTICS:
LENGTH: 286 amino acids
                                                                                         ; STRANDEDNESS:
; TOPOLOGY: lin
; MOLECULE TYPE:
US-08-118-270-65
Query Match 82.0
Best Local Similarity 91.7
Matches 276; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., St.
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                               amino acid
                                                                                                                            SS: single
linear
                                                                                                          peptide
               82.0%;
91.7%;
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RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
348
Score 1382.5;
Pred. No. 3.5e
4; Mismatches
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3.5e-116;
nes 6;
                                    DB 1;
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 Indels
 15;
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PCT-US93-08528-65
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 Query Match
Best Local S
Matches 276
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                                                                                                                                                         TELEX: 248633
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION MADRER: PCT/US93/08528
FILING DATE: 09-SEP-1993
                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: MURPHY=2 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                            FILING DATE: 10-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: Townsend, Kevin G.
REGISTRATION NUMBER: 34,
                                                                                     MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: New York University
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             286
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                                                                                                  TOPOLOGY: lir
                                                                                                                                                                                                   TELEFAX:
                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                     TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
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                                                                                                                                               LENGTH:
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              Similarity
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                                                                                                                                            286 amino acids
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 Conservative
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                                                                                   peptide
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             82.0%;
91.7%;
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Score 1382.5;
Pred. No. 3.5e
4; Mismatches
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              5; DB 5;
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 Indels
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                             286;
 15;
Gaps
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; MOLECULE TYPE: US-08-118-270-62
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                                                                                                    TELEX: 248633
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                      APPLICATION NUMBER: US/08/118,270 FILING DATE: 09-SEP-193
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/943,236
FILING DATE: 10-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: Townsend, Kevin G.
                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Murphy, Randall B.
APPLICANT: Schuster, David I.
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND ME
                                                                                                                                            REFERENCE/DOCKET NUMBER: MUTELECOMMUNICATION INFORMATION: 202-628-5197
                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: PO
TITLE OF INVENTION: RE
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 419 Seven CITY: Washington STATE: D.C. COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC OPERATING SYSTEM: SOFTWARE: Patentl
                            STRANDEDNESS:
TOPOLOGY: li
                                                                                                                   TELEPHONE: 202 -
TELEPHONE: 202-737-3528
                                                                                                                                                                                       NAME: Townsend, Kevin G. REGISTRATION NUMBER: 34,033
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                                                                       LENGTH:
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                                                      amino acid
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                                                                     277 amino acids
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SYSTEM: PC-DOS/MS-DOS
                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                     BROWDY AND NEIMARK

Seventh Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                    Floppy disk
            peptide
                                          single
                                                                                                                                                                                                                                                                                                                         Release #1.0,
                                                                                                     62:
                                                                                                                                                                           MURPHY=2A
                                                                                                                                                                                                                                                                                                                         Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND METHODS THEREOF
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Query Match Best Local Similarity

41 49

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Score Pred.

705; No. 1.

DB 1; .2e-55;

Length 277;

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RESULT 4
PCT-US93-08528-62
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                                                   Matches
                                                                                                                                                                                                                                                  TELEPHONE: 202-628-519
TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 277 amino acids
                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: MUTELECOMMUNICATION INFORMATION: 202-628-5197
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/
FILING DATE: 09-SEP-1993
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 10-SEP-1992 ATTORNEY/AGENT INFORMATION:
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                 27 LLFFLSLLDYVLVLTENMLIIIAIRNHPTL--HKPMYFFLANMSFLEIWYVTVTIPKMLA 84
                                                                 Local
                                                                                                                                                                    TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
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tch 41.8%; Score 705; DB 5; Length 277; al Similarity 49.7%; Pred. No. 1.2e-55; 142; Conservative 41; Mismatches 89; Indels
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                                                                                                                                                                  linear
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US-08-748-506-18

; Sequence 18, Application US/08748506

; Patent No. 6159707
                                                                                                                                                                                                                                                       ; MOLECULE TYPE: US-08-748-506-18
                                                                                                                                                     Query Match 39.6%;
Best Local Similarity 47.6%;
Matches 136; Conservative 4
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                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 312-616-5700 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
74940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 09-NOV CLASSIFICATION: 435
                                      87
                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 08-NO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
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                                                                                                                                                                                                                                                                                                                              LENGTH:
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                    IGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRYVAICHPLHYPVIVSSRLC 146
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V----SEAREISREGCATQMFFFAFFGITECCLLAAMAFDRCMAICSPLHYATRMSREVC
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                                                                                                                                                                                                                                                                                                            amino acid
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                                                                                                                                                     ; Score 668; DB 4;
; Pred. No. 2.8e-52;
47; Mismatches 99;
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                                                                                                                                                                                         Length 321;
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US-08-748-506-10
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                                                                                                                                                                                                                     Matches 136;
                                                                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER: 74
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-616-5600
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/033,751
FILING DATE: 09-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS: ADDRESSE: Leydig, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Ronnett of TITLE OF INVENTION: NUMBER OF SEQUENCES:
207 LAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTVVIIFYAASIFIYAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
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                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                         VQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPLLNLSCTDMSTAELTDFV
                                                                                                          AHLAIVSWGMGCIVSLGQTNFIFSLNFCGPCEIDHFFCDLPPLLALACGDTSQNEAAIFV
                                                                                                                                                       LLFNLILLMFLVSLTGNTLIVLAICTSPSLHTPMYFFLANLSLLEIGYTCSVIPKMLQSL 91
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NOVEL SPERM RECEPTORS
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Pred. No. 4.2e-52;
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US-08-748-506-20
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US-08-748-506-20
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Best Local Similarity
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REFERENCE/DOCKET NUMBER: 74
TELECOMMUNICATION INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0
CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US 60/033,751
FILING DATE: 09-NOV-1995
CLASSIFICATION: 435
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Leydig, Voit & Mayer, Ltd.
STREET: Two Prudential Plaza, Suite 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                                                                       27 LIFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSFLEIWYVTVTIPKMLAGF 86
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                             PKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRRTLHL 312
                                                                               LAIFILLGPLSYTGASYMAITGAVMRIPSAAGRHKAFSTCASHLTVVIIFYAASIFIYAR 266
SKSSHSPGVDKLLALFYTSVTSMLNPIIYSLRNKEVKGALRRTLGL
                                                                                                                                                          VQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPLLNLSCTDMSTAELTDFV 206
                                                                                                                                                                                           V--SEARG--ISWEGCASQMFFFIFFGITECCLLAAMAFDRYMAICSPLHYATRMSRGVC
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                                                                                                                           AYLAIVSWVMGCIVGLGQTNFIFSLNFCGPCEIDHFFCDLPPLLALACGDTSQNEAAIFV 207
                                                                                                                                                                                                                                                           LLFTLILLMFLVSLTGNILIALAICTSPSLHTPMYFFLANLSLLEIGYTCSVIPKMLQSL 91
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Pred. No. 1.4e-51;
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RESULT 9
US-08-748-506-12
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US-08-748-506-11
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-616-5600
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: Leydig, Voit & Mayer, Ltd.
STREET: Two Prudential Plaza, Suite 4900
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ronnett et al.
TITLE OF INVENTION: NOVEL SPERM RECEPTORS
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                                                                                                                                                           AATLCISSPFLVILYSYVRILVAVLVMPSPEGRHKALSTCSSHLLVVTLFYGSVSFTYLR
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                                                                                           PKSSHSPGMDKLLALFYTAVTSMLNPITYSLRNKEVKAALRRTLDLKKIMSIN 320
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CORRESPONDENCE ADDRESS

NOVEL SPERM RECEPTORS

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RESULT 10
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                                                                     Sequence 19, Application US/08748506 Patent No. 6159707
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GENERAL INFORMATION:
APPLICANT: Ronnett et al
TITLE OF INVENTION: NOVEL
NUMBER OF SEQUENCES: 31
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CLASSIFICATION: 435
ATTORNEY_AGENT INFORMATION:
REFERENCE/DOCKET NUMBER:
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APPLICATION NUMBER: US,
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MEDIUM TYPE: Floppy disk
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NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                             148
                                                                                                                                                                                 268 SKSSHSPGVDKLLALFYTSVTSMLNPIIYSLRNKEVKGALRRTLGL 313
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                                                                                                                                                                                                                                                                                                                                                                                              32 LLFTLILLMFLVSLTGNTLIALAICTSPSLHTPMYFFLANLSLLEIGYTCSVIPKMLQSL 91
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 39.0%; Score 658; DB 4; Local Similarity 47.6%; Pred. No. 2.2e-51;
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                                                                                                                                                                                                       PKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRRTLHL 312
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VENTION: NOVEL SPERM RECEPTORS
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STREET: Chicago

ADDRESSEE:

E: Leydig, Voit & Mayer, Ltd. Two Prudential Plaza, Suite 4900

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RESULT 11
US-08-748-506-13
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                                                                                                                                                                         GENERAL INFORMATION:
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TELEPHONE: 312-616-500
TELEPAS: 312-616-5700
INFORMATION FOR SEQ ID NO: 19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 60 FILING DATE: 09-NOV-1995 CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION: REFERENCE/DOCKET NUMBER:
                                                                                                                                  APPLICANT: Ronnett et al.
TITLE OF INVENTION: NOVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR NUMBER: US 60/033,751
                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Leydig, Voit & Mayer, Ltd.
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MOLECULE TYPE:
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LENGTH: 321 amino acid
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APPLICATION NUMBER: US
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                                                                                                                      NUMBER OF SEQUENCES:
                                STREET: 1+-
STREET: 1+-
                                                                                                                                                                                                                                                                                                  268
                                                                                                                                                                                                                                                                                                               267 PKALSAFDTNKLVSVLYAVIVPLENPIIYCLRNQDVKRALRRTLHLAQDQEAN 319
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27 LLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSFLEIWYVTVTIPKMLAGF 86
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                  COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLFTLILLMFLVSLTGNALIALAACTSPSLHTPMYFFLANLSLLEIGYTCSVIPKMLQSL 91
                                                                                                                                                                                                                                                                                                 PKSSHSPGMDKLLALFYTAVTSMLNPIIYSLRNKEVKAALRRTLDLKKIMSIN 320
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                                                                                                                                        NOVEL SPERM RECEPTORS
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25

CORRESPONDENCE ADDRESS:
ADDRESSEE: Leydig, Voit & Mayer,
STREET: Two Prudential Plaza, Su

Suite 4900

STREET: Two Pr CITY: Chicago STATE: IL

COUNTRY: US ZIP: 60601-6780

APPLICANT: Ronnett et al.
TITLE OF INVENTION: NOVEL
NUMBER OF SEQUENCES: 31

NOVEL SPERM RECEPTORS: 31

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Sequence 24, Application US/08748506 Patent No. 6159707 GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 60/033,751
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ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                          268 PKSSHSPGMDKLLALFYTAVTSMLNPIIYSLRNKDVKAALRRILAL
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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                                                                                                                                                                                                                     VVVLCISSPFLLIIYSYVRILVAVLVMPSPEGRHKALSTCSSHLLVVTLFYGSGSVTYLR
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46.5%;
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Pred. No. 6.1e-51;
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US-08-748-506-14
; Sequence 14, Application US/08748506
; Patent No. 6159707
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; MOLECULE TYPE:
US-08-748-506-24
                                                                                                                                                                                                                                                                                             Patent No. 6159707
GENERAL INFORMATION:
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                                             ZIP: 60601-6780
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COPPUTATION SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Leydig, Voit & Mayer, Ltd
STREET: Two Prudential Plaza, Suite '
                                                                                                                                                                                                                                          APPLICANT: Ronnett et al.
TITLE OF INVENTION: NOVEL SPERM RECEPTORS
NUMBER OF SEQUENCES: 31
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LENGTH: 327 amino acids
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                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                       COUNTRY:
                                                                                                                                                         STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 08 CLASSIFICATION:
 APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----LHLAQDQEA 318
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US/08/748,506
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                                                                                                                                                                                          Suite 4900
                                  Version #1
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US-08-988-876-7
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Patent No. 6063596
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                                                                                                                                                                                                                                                                                                                GENERAL
            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
                                                                                                                                                                                                       APPLICANT: Lal, Preeti
APPLICANT: Bandman, Olga
APPLICANT: Hillman, Jennifer L.
APPLICANT: Yue, Henry
TITLE OF INVENTION: G PROTEIN CO
                                                                                                                                                                      CORRESPONDENCE ADDRESS
                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
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                                                                                                        STATE:
                                                                                                                     CITY: Palo Alto
                                                                                                                                       ADDRESSEE: Incyte Pharmaceuticals, Inc STREET: 3174 Porter Drive
OPERATING SYSTEM:
                                                                                COUNTRY:
                                                                                                                                     STREET:
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IBM Compatible

Diskette

USA

CA

Application US/08988876

G PROTEIN COUPLED RECEPTORS ASSOCIATED WITH IMMUNE RESPONSE

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; MOLECULE TYPE: protein US-08-748-506-14
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Best Local
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303 VHQALRDALSRLQ 315
                                          302 VKRALRRTLHLAQ 314
                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 09-NOV CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 ERRNHSGRVSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMY 61
                                                                                                                              AFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQD 301
                                                                                                                                                                         FFCDFGPLANLSCSETRSIEMLFFTLAVIVLFASFLIAIFAYSNIVVTIVRLPSARERQR 242
                                                                                                                                                                                                                    FFCDVSPLLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHK 241
                                                                                                                                                                                                                                                             ALSLDRFLAICKPLHYPTIMSPRMCFLLVTVCLFLGFLFMASPVVMLSKTFYCGPNIIPH 182
                                                                                                                                                                                                                                                                                                                                                   FFLSTFSFVECCFITTAIPQLLTIILSGR----QKIPFGVCFSQAFVYLVVGATGFFLLA 122
                                                                                                                                                                                                                                                                                                                                                                                           FFLANMSFLETWYVTVTTPKMLAGFTGSKENHGQLTSFEACMTQLYFFLGLGCTECVLLA. 121
                                                                                   AFSTCSSHLIVLSLMYGSCAFIYLKPKQRSRVDTNREAALVNMVVTPLLNPVIYTLRNKQ 302
                                                                                                                                                                                                                                                                                                                                                                                                                                        ETRNGT-LVLEFILEGYPVAEHLKILFFLLHLLAYLASLMGNMLIITITCVDHRLQTPMY 66
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129; Conserv
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41.2%;
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Pred. No. 2.7e-48;
3; Mismatches 126;
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US-08-748-506-22; Sequence 22, Application US/08748506; Patent No. 6159707
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; CLONE: 32086
US-08-988-876-7
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Best Local Similarity
                                                                                                                                                                                     GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Leydig, Voit & Mayer, Ltd.
STREET: Two Prudential Plaza, Suite 4900
                                                                                                                             APPLICANT: Ronnett et al.
TITLE OF INVENTION: NOVEL SPERM RECEPTORS
NUMBER OF SEQUENCES: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: BILLINGS, LUCY J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
COMPUTER READABLE FORM:
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            COUNTRY: US
ZIP: 60601-6780
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                                                                                                                                                                                                                                                                                                                                                                                    LSVVSLFYGTVIGLYLCSSANSSTLKDTVMAMMYTVVTPMLNPFIYSLRNRDMKGALSRV 304
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPL 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SDLCFSSVTIPKLLQ-----NMQNQDPSIPYADCLTQMYFFLLFGDLESFLLVAMAYDRYV
                                                                                                                                                                                                                                                                                                                                                                                                                   LTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRRT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AICFPLHYTAIMSPMLCLALVALSWVLTTFHAMLHTLLMARLCFCADNVIPHFFCDMSAL
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Search completed: May 22, 2002, 15:40:20 Job time: 565 sec

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 312-616-5700 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/748,506
FILING DATE: 08-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/033,751
FILING DATE: 09-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 327 amino acids
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311 LSRVQ 315
                                     310 LHLAQ 314
                                                                                                                                                                                                                          131 AICKPLHYPTIMSPRMCFLLVTVSLVLGFLFMASPVVMLSQSFYCGPNIIPHFFCDFGPL 190
                                                                          250
                                                                                                                                                    191 ANLSCSETRSIEMLFFTLAIIVLFASLLIAIFAYSNIVVTIVRLPSARERQRAFSTCSSH
                                                                                                                                                                                                                                                  130 AICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPL 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 327 amino
TYPE: amino acid
                                                                                                                                                                                                                                                                                                 75 VECCFITTVIPQLLTIILSGR----QKIPFMACISQAFVYLVVGATGFFLLGVLSLDRFL 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 312-01.
TELEPHONE: 312-616-5700
                                                                                                                                                                                                                                                                                                                                    70 LEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRYV 129
                                                                                                                                                                                                                                                                                                                                                                         15 VLEFIFDRFPVAEHLRILFFLLHLLAYLASLMGNMLIITITCVDHRLQTPMYFFLSMFSS 74
                                                                                                                                                                                                                                                                                                                                                                                                            10 VSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSF 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE:
                                                                                                                                                                          LNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASH 249
                                                                                                             LTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLENPIIYCLRNQDVKRALRRT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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7 42.0%; Pre
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Pred. No. 1.3e-47;
0; Mismatches 123
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Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1: sp_archea:*
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3: sp_fungi:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
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sp_mhc:*
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sp_rodent:*
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Q9epy0 mus musculu
Q9epy0 mus musculu
Q57597 gallus gall
Q13036 gallus gall
Q9epy1 mus musculu
P70024 xenopus lae
Q9ep67 mus musculu
                   Q9jka6 mus musculu
Q9epg0 mus musculu
Q96r38 homo sapien
                                                                                                                                                                                                                                                                                                        Q9qwu6 mus musculu
Q9h206 homo sapien
Q9epg2 mus musculu
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Q9wu86
Q9jka6
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39.2	9.	39.2	9.	9.	9.	9.	9.	9.	39.7		39.9			40.0		40.2			40.4			41.2	41.2				42.1	42.5
321	308	129	312	321	315	332	313	308	313	314	318	312	267	318	318	317	313	312	314	319	267	310	314	319	317	306	317	324
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070268	Q9R0K3	Q9ESG0	Q90x10	070266	035434	290806	Q9Z1V0	Q90X09	077758	077756	Q920Z2	Q9QZ18	Q9ERX7	Q9QZ20	Q9QZ21	Q923R1	Q63394	808060	Q9EPG5	Q9QZ19	Q9ERX6	Q9EP55	Q9EPG6	Q9QZ22	Q9н208	Q96KK4	Q9EPG4	Q920G5
070268 rattus norv	Q9r0k3 mus musculu		Q90x10 ambystoma t	070266 rattus norv	rattus			Q90x09 ambystoma t	hylo	077756 pan troglod	mus	Q9qz18 mus musculu	ratt	mus	mus	mus mus	rattus	_	Q9epg5 mus musculu	mus	Q9erx6 mus musculu	mus	mus	2 mus	homo		Q9epg4 mus musculu	Q920g5 mus musculu

ALIGNMENTS

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H	PRINTS; PR00237; GPCRRHODOPSN.	InterPro; IPR000276; GPCR_Rhodpsn.	MGD; MGI:1333840; Olfr41.		SUBJECT (NOV 2000) TO THE EMBLY GENERALY DUBO MATABASES. EMBL: ARTHOROT: ARTHOROGY.	quence.";	luster Stability	Analysis of Orthologous N	l R., Hood L., Trask B.J.;	Lane R.P., Cutforth T., Young J., Athanasiou M., Friedman C.,		SECTION OF THE SECTIO		Cell 95:917-926(1998)	"identification of ligands for offactory receptors by functional expression of a recentor library ".		MEDLINE~99091050; PubMed-9875846;	L/6;	SEQUENCE FROM N.A.	[1]		Rodentia: Sciurognathi; Muridae;	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Mus musculus (Mouse)	OLERATION SECTION FOR	-	(IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	(Tremburel 13 Last		Q9QWU6 PRELIMINARY; PRT; 327 AA.		ULT 1 .	

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SEQUENCE

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Matches 291
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Best Local
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SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                      01-MAR-2001 (Tremblrel.
01-MAR-2001 (Tremblrel.
01-DEC-2001 (Tremblrel.
HI7 OLFACTORY RECEPTOR.
                                                                                                                                                    PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                   Lane R.P., Cutforth T., Young J., Athanasiou M., Rowen L., Evans G., Axel R., Hood L., Trask B.J., "Genomic analysis of orthologous mouse and human
                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=21310002; PubMed=11416212;
                                                                                                                                                                                                                                                                                                                                                                   Q9H2O6;
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                        Q9н206
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KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
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                                                                                                                                                                                           Natl. Acad. Sci. U.S.A. 98:7390-7395(2001).
AF321237; AAG45208.1; -
Pro, IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                     PF00001;
                                                                                         Similarity
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                                                                                 Conservative
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16,
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Last annotation update)
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                                                                                Score 1498; DB 4;
Pred. No. 1.1e-134;
4; Mismatches 20;
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Pred.
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Catarrhini;
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No. 1
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                                                                                                                                                                                                                                                                                                          Vertebrata; Euteleostomi;
i; Hominidae; Homo.
                                                                                                                                                                UNKNOWN_1
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Matches 179
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01-MAR-2001
01-DEC-2001
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pfam; PF00001; 7tm_1; 1.
printys; pr00237; GpCRRHODOPSN.
prOSITE; PS00237; G_PROTEIN_RECEP_F1_1;
prOSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lane R.P., Cutforth T., Young J., Athanasiou M., Rowen L., Evans G., Axel R., Hood L., Trask B.J.: "Genomic analysis of orthologous mouse and human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-C57BL/6J;
MEDLINE-21310002; PubMed-11416212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proc. Natl. Acad. Sci. U.S.A. EMBL; AF321234; AAG45189.1; -.
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Mammalia; Eutheria;
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                                                                                                                LNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCASH
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Rodentia;
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Last annotation updat
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Pred. No. 4.1e-86;
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Q9EPV0;
01-MAR-2001 (TrEMBLrel. 1
01-MAR-2001 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
M50 OLFACTORY RECEPTOR (O
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SEQUENCE
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
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pfam; pF00001; 7tm_1; 1.
pRINTS; pR00237; GPCRRHODOPSN.
pROSITE; pS00237; G_PROTEIN_RECEP_F1_1;
pROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
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Lane R.P., Cutforth T., Young J., Athanasiou M., Friedman
Rowen L., Evans G., Axel R., Hood L., Trask B.J.;
"Genomic analysis of orthologous mouse and human olfactory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-C57BL/6J;
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177; Conservative
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. 16, Created)
. 16, Last sequence update)
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(OLFACTORY RECEPTOR M50).
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Last
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Pred. No. 7.1e-85;
4; Mismatches 66
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annotation update)
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Matches
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EMBL; AF331236; AAG45202.1; -.

EMBL; AF293079; AAG97075.1; -.

InterPro; IPR000276; GPCR_Rhodpsn.

Pfam; PF00001; 7tm.1; 1.

PROSITE; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; GPCRTEIN_RECEP_F1_1; UN

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.
 COR7A.
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chord
Archosauria; Aves; Neogna
Gallus
                                                  057597;
01-JUN-1998 (TrE
01-JUN-1998 (TrE
01-DEC-2001 (TrE
CHICK OLFACTORY)
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SEQUENCE
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Lane R.P., Cutforth T., Young J., Athanasiou M.,
Rowen L., Evans G., Axel R., Hood L., Trask B.J.;
"Genomic analysis of orthologous mouse and human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Proc. Natl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in mouse.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xie S., Feinstein P., No. Tharacterization of a
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[1]
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LEAWYISVTVPKHLAGFLFRPNT----ISFLGCMTQLYFFMSLACTECVLLAAMAYDRYV
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                                                  8 (TrEMBLrel. 06, 8 (TrEMBLrel. 06, 1 (TrEMBLrel. 19, CTORY RECEPTOR 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       316
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                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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          Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       35407 MW; OBC490530EA531EE CRC64;
          Chordata; Craniata; Vertebrata;
Neognathae; Galliformes; Phasiani
                                                                                                                                                                                                                                                                                                                                                                                                            58.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                     53;
                                                                                                                                                                                                                                                                                                                                                                                                Score 970; DB
Pred. No. 2.1e
53; Mismatches
                                                            Last sequence update)
                                                                                 Created)
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Sciurognathi; Muridae
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                                                                                                                                                                                                                                                                                                                                                                                                            970; DB 11;
No. 2.1e-84;
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           Phasianidae;
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; Murinae; Mus
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Best Local S
Matches 173
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O13036;
01-JUL-1997 (TrEMBLrel. 0
01-JUL-1997 (TrEMBLrel. 0
01-DEC-2001 (TrEMBLrel. 1
                                                                                                                                       COR7B
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Pfam; PF0(
  SEQUENCE OF 1-319 FROM N.A. MEDLINE-96317247; PubMed-8734500; MEDLINE-96317247; PubMed-8734500; Mef S., Allaman I., Fiumelli H., De Castro E., Nef P.; "Olfaction in birds: differential embryonic expression putative odorant receptor genes in the avian olfactory Mech. Dev. 55:65-77(1996).
                                                                                                                              Gallus gallus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mech.
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MEDLINE-96317247; PubMed-8734500;

Nef S.; Allaman I., Fiumelli H., De Castro E., Nef P.;

"Olfaction in birds: differential embryonic expression
putative odorant receptor genes in the avian olfactory

Mech. Dev. 55:65-77(1996).
                                                                                                       Archosauria;
                                                                                                                 Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (AUG-1996)
EMBL; 279586; CAB018
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                                                                               NCBI_TaxID=9031;
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                                                                                                                                                    OLFACTORY
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PF00001; 7tm_1; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G-protein coupled receptor
                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                             (Chicken).
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                                                                                                       Neognathae;
                                                                                                                 Chordata;
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of cor7b,
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Pred No. 4.
                                                                                                    Craniata; Vertebrata; Euteleostomi;
; Galliformes; Phasianidae; Phasiani
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Q1-MAR-2001 (TrEMBLrel. 1
Q1-MAR-2001 (TrEMBLrel. 1
Q1-DEC-2001 (TrEMBLrel. 1
B6 OLFACTORY RECEPTOR.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chord
Mammalia; Eutheria; Roden
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=97272300; PubMed=9114066;
MEDLINE=97272300; PubMed=9114066;
Nef S.S., Nef P.N.;
"Olfaction: Transient expression of cor7b, a putative odorant gene, in the notochord during early stages of development.";
qene, in the notochord during early stages of development.";
acad. Sci. U.S.A. 94:4766-4771(1997).
        InterPro;
Pfam; PFO
                 Proc. Natl. Acau. J. Proc. Natl. Acad. Aca
                                                                                                                                                                Lane R.P., Cutforth T., Young J., Athanasiou Rowen L., Evans G., Axel R., Hood L., Trask B "Genomic analysis of orthologous mouse and huloci.";
                                                                                                                                                                                                                                                                                                                                STRAIN=129SVJ;
MEDLINE=21310002; PubMed=11416212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria;
NCBI_TaxID=10090;
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InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1
PROSTITE: The control of the control 
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                                                                                                                         Natl. Acad. Sci. U.S.A.
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170; Conser
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Rodentia;
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Pred.
                                                                                                                             98:7390-7395(2001)
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Matches 143
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Best Local S
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P70024;
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PROSITE;
PROSITE;
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-96112032; PubMed-8845161;
MEDLINE-96112032; PubMed-8845161;
METHAM J., Krieger J., Strotman J.,
"Two classes of olfactory receptors
Neuron 15:1383-1392(1995).
                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 19, Last sequence update)
01-FEB-1997 (TrEMBLrel. 19, Last annotation update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
01-EACTORY RECEPTOR (FRAGMENT).
Xenopus laevis (African clawed frog).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea
                                                                                                                                                       InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                          EMBL; Y08353; CAA69639.1;
                                                                                                                                                                                                                                                                                                Freitag J
Submitted
                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                             Xenopodinae;
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VTEFIFLGLSQDPQTQVLLFFLFIYLLTVLGNLLIIVLIHSDPRLHTPMYFFLRNLSF 68
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SUMSFLEIRYISVTLPULLVUTL-SKD---MSISLAGCMAQLYFFISLMCTECVLLAVMA
            ANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIVVVLFYGSAIFAYMRPNSKIMNEKDKMISVFYSAVTPMLNPIIYSLRNKDVKGALRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LTVVIIFYAASIFIYARPKALSAFDTNKLYSVLYAVIVPLFNPIIYCLRNQDVKRALRR
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143; Conservative
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                                                           Similarity
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222 #
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                                               Conservative
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                                            Score 739; DB
Pred. No. 1.5e
39; Mismatches
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Pred. No. 1.4e-62;
2; Mismatches 100
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in Xenopus
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                                                           DB 13;
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Rowen L., Evans G., Axel R., Hood I
"Genomic Analysis of Orthologous Mc
Loci Indicates Cluster Stability You
Coding Sequence.";
Submitted (NOV-2000) to the EMBL/Ge
EMBL; AF321235; AAG45200.1;
EMBL; AF321234; AAG45193.1;
                                                                                                                                                                                                                                                                                        Interpro; IPR000276; GPCR_Rhodpsn.

pfam; pr00001; 7tm_1; 1.

prINTS; pr00237; GPCRRHODOPSN.

pROSITE; pS00237; G_PROTEIN_RECEP_F1_1;

pROSITE; pS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia; NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001 (
B5 OLFACTORY
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01-MAR-2001
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                                                                                                                                                                                                                  Local Similarity 47.5 les 142; Conservative
                                                                                                                                                                                            10 VSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANMSF 69
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                                         LEIWYYTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGIGCTECVLLAVMAYDRYV 129
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                                                                                                                                                                       TCASHLTVVTIFFSTTLFMYARPKKAKSLDYFKILSLLYAVFTPM
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                    LTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQDVKRALRR 308
                                                                                     AVCKPLHYSTIMTHWVCVQLAAGSWASGALVSLVDTTFTLRLPYRGNNVINHFFCEPPAL
                                                                                                       AICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHFFCDVSPL 189
                                                                                                                             ADLCFSTTTVPQVLVHFLVKRKT----ISFAGCSTQIVVLLLVGCTECALLAVMSYDRYV
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                                                                                                                                                                                                                                                                                                                                                                                                                                  AND C57BL/6J;
                                                                                                                                                                                                                                                                      34288 MW;
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47.5%;
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16,
17,
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                                                                                                                                                                                                                 Score 738; DB 11;
Pred. No. 2.6e-62;
2; Mismatches 101;
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Hood
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                                                                                                                                                                                                                                                                                                                                                                                         Mouse
Yet Mi
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Best Local :
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01-NOV-1999 (TrEMBLrel. 1
01-NOV-1999 (TrEMBLrel. 1
01-JUN-2001 (TrEMBLrel. 1
0DORANT RECEPTOR S1.
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Q9EPF9;
Q1-MAR-2001
01-OCT-2001
01-DEC-2001
                                           (1)
SEQUENCE FROM N.A.
STRAIN=BALB/C;
MEDLINE=99189756; PubMed=10089886;
MEDLINE=99189756; PubMed=10089886;
             Mainic B., Hirono J., Sato T., "Combinatorial receptor codes Cell 96:713-723(1999).
EMBL; AF121972; AAD27592.1; -.
                                                                                            NCBI_TaxID=10090;
[1]
                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
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Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lane R.P., Cutforth T., Young J., Athanasiou Rowen L., Evans G., Axel R., Hood L., Trask E "Genomic analysis of orthologous mouse and huloci.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J;
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Mammalia; Eutheria;
                                                                                                                                   Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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(TrEMBLrel. 18,
(TrEMBLrel. 19,
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                                                                                                               Chordata;
Rodentia;
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Rodentia;
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Last sequence update)
Last annotation update)
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Pred. No. 5.1e-62;
52; Mismatches 101;
                                     for
                                                                                                              Craniata; Ver
Sciurognathi;
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Sciurognathi; Muridae;
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Best Loc
Matches
Lane R.P., Cutforth T., Young J., At Rowen L., Evans G., Axel R., Hood L. "Genomic Analysis of Orthologous Mol. Loci Indicates Cluster Stability Yet Coding Sequence.";
Submitted (NOV-2000) to the EMBL/Ger EMBL; AF2247657; AAF65461.1; -...
EMBL; AF321233; AAG45184.1; -...
MGD; MGI:109148; Olfr17.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                            09JKA6;
01-OCT-2000
01-OCT-2000
01-JUN-2001
OLFACTORY RE
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                                                                                                                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
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PROSITE; PS00237; G_PROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
PROSITE; PS00284; SERPIN; UNKNOWN_1.
                                                                                                                   STRAIN=129/SVJ;
                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                      Neuron
                                                                                                                                                                                                     STRAIN-129/SVJ;
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InterPro; IPR000215;
Pfam; PF00001; 7tm_1;
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Rodentia;
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                                                                                                                                                                 ., Bozza T., Rodriguez I., Mombaerts P.;
Projections Are Differentially Affected
Nucleotide-Gated Channel Subunit.";
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Pred. No. 9.3e-62;
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Sciurognathi; Muridae;
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                                                                                             Athanasiou M.,
L., Trask B.J.;
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inimal Conservation
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; Murinae; Mus
                                                                                                         <u>ر</u>.
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Matches 141
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Best Local Similarity
Matches 142; Conser
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-C57BL/6J;
MEDLINE-21310002; PubMed-11416212;
Lane R.P., Cutforth T., Young J., Athanasiou M., Friedman
Rowen L., Evans G., Axel R., Hood L., Trask B.J.;
"Genomic analysis of orthologous mouse and human olfactory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9EPGO;
01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
                                                                                                                                                  Receptor.
SEQUENCE
                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 98:7
EMBL; AR321234; AAG45192.1; -
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B4 OLFACTORY RECEPTOR.
MUS musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00001; 7tm_1; 1.

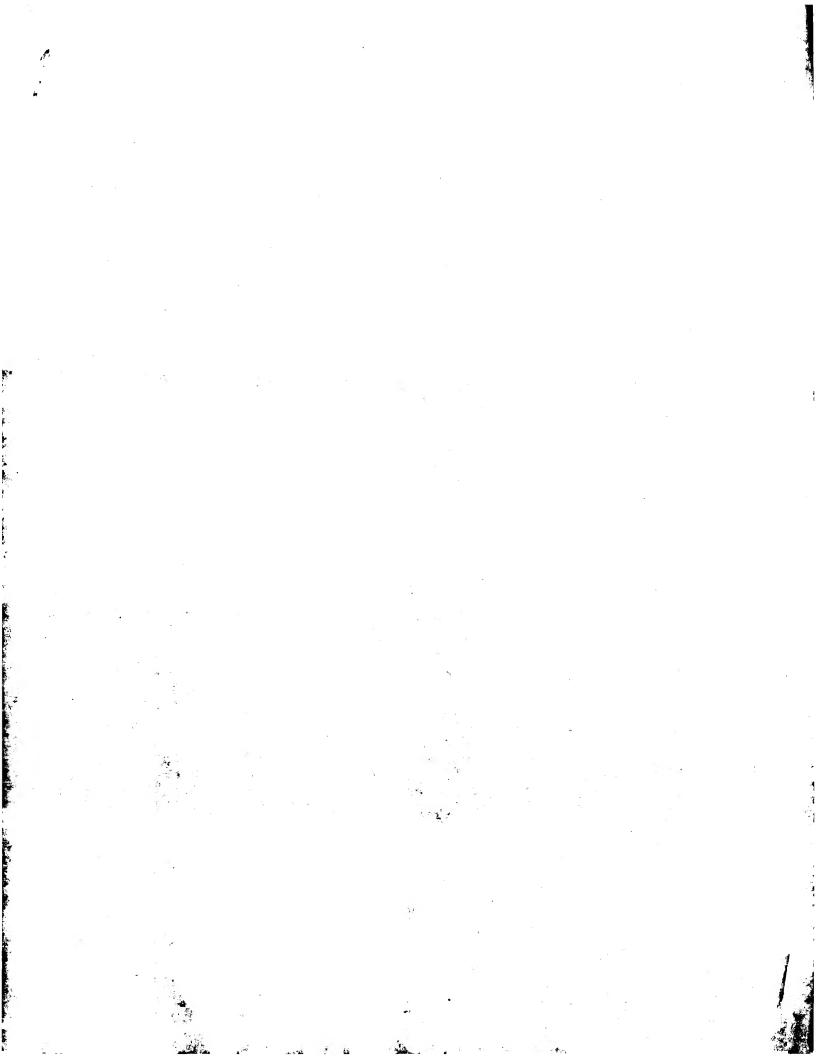
PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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VSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIAIRNHPTLHKPMYFFLANMSF
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                                                                 Similarity
                                                                                                                                                                                      PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1 PS50262; G_PROTEIN_RECEP_F1_2; 1.
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                                          52;
                                      Score 722; DB
Pred. No. 8.8e
52; Mismatches
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Pred. No. 2.7e
50; Mismatches
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                         98:7390-7395(2001)
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No. 2.7e-61;
No. 106;
                                                               722;
No. 8.
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                                                               DB 11;
.8e-61;
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Best Local
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01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence up
01-DEC-2001 (TrEMBLrel. 19, Last annotation
                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
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                                                                 LLNLSCTDMSTAELTDFVLAIFIILLGPLSVTGASYMAITGAVMRIPSAAGRHKAFSTCAS
                                                                                                                                                         FLETWYISVTVPKLLFSFWSVNNS----ISFTLCMIQLYFFIALMCTECVLLAAMAYDRY
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Pred. No. 9.1e-61;
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Job time: 449 sec мау 22, 2002, 15:41:20



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Result
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Maximum DB seq
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Perfect score:
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Copyright (c) 1993 - 2000 Comp
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Odorant receptor c
Human olfactory re
Human olfactory re
G-protein coupled
G-protein coupled
Human olfactory re
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   RESULT
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                                                                                                                                                                                                                                                                                                                                          Odorant receptor; insect; vertebrate; fish; mammal; neurotransmitter; hormone; G-protein; surface receptor; oliactory epithelium; PCR; Sprague-Dawley rat; amplify; primer; polymerase chain reaction; multigene family; ligand binding domain.
                                                                                                        05-APR-1991;
                                                                                                                                      06-APR-1992;
                                                                                                                                                                        15-OCT-1992.
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Human olfactory re	AAU24667	22	324	43.3	730
o	-	22	324	•	730
ry r		22	314	•	0
	AAU05133	22	314		0
		22	322		33.5
olfactory		22	317	43.5	ω
ol fa		22	317		736
Murine partial olf		22	304		738
Olfactory receptor		22	222	•	739
Human olfactory re		22	312		743
Human OR-like poly	7	22	304	٠	743
olfactor	7	22	304	•	743
×	AAG72585	22	312		Ωī,
Human G-protein co	AAE06767	22	312	•	45.5
Human olfactory re	AAU24609	22	312		ū
Human olfactory re		22	317	•	Ò
Olfactory receptor		22	222	•	7
Human olfactory re		22	312	•	N
Novel human diagno		22	291	•	66.5
Human olfactory re		22	308		774
Human olfactory re		22	308	•	774
Human OR-like poly		22	317	46.0	776
olfactor	AAG71729	22	317		776
lfactory r		22	317	46.0	776
ര		13	311		784
tory recep	AAG73006	22	311		788
-like p		22	330		871
n olfactory r	AAG71967	22	319		887
olfactory		22	314	•	923
n olfactor	2	22	325		44.5
n OR-like po	7	22	324	٠	4
olfactor	2	22	324	•	4
OR-like pol	AAG72361	22	311	56.8	57.5
Human olfactory re	2	22	311	•	Ž

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Matches 324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequences given in AAR27867-89 are encoded by odorant receptor clones derived from an insect, a vertebrate, a fish or a mammal. These clones form a family of neurotransmitters and hormone receptors which transduce intracellular signals by activation of specific G-proteins. Each of these receptors is a member of a superfamily of surface receptors which traverse the membrane seven times. These
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This divergence in the potential ligand binding domain is consistent with the idea that the family of molecules cloned is capable of asssociating with a large number of odorant of diverse molecular
                                                                  AAU24727;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    asssociating
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                                          18-DEC-2001
                                                                                              AAU24727 standard;
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             olfactory
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nilarity 99.1%;
Conservative
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                                       (first entry)
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             receptor AOLFR226
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                                                                                              Protein;
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3.7e-187;
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24 -MAR - 2000;
12 - APR - 2000;
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26 - MAY - 2000;
23 - JUIN - 2000;
16 - AUG - 2000;
07 - SEP - 2000;
07 - FEB - 2001;
                                                                                                                                                                                                                                                                                                                                              The invention relates to nucleic acids encoding human olfactory receptors, OR, (a G protein-coupled receptor, GPCR). The OR's specifically recognise molecules, odourants, that elicit specific olfactory sensation. The human olfactory receptors and polynucleotides encoding them are useful for screening a library of chemical compounds for compounds that are involved in olfactory sensation. Modulators of their activity are useful for pharmacological and genetic modulation of olfactory signalling pathways. Therefore, they can be used in the food, pharmaceutical and cosmetic industries to customise odours and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acids encoding human olfactory G protein-coupled useful for screening for compounds involved in olfactory where the compounds can be used in the food, pharmaceutic
                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 60;
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                                                                                           2001-570867/64.
DB; AAS42420.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        n; olfactory receptor; G protein-coupled receptor; GPCR; odourant; additive; cosmetic; fragrance; pharmaceutical additive.
                     KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
                                                                                                                  AVMAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTIN 180
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2000US-0192033.
2000US-0198474.
2000US-0199335.
2000US-0207702.
2000US-0213849.
2000US-0236534.
2000US-0236732.
2001US-0266862.
                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                     present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to customise odours
                                                                                                                                                                                                                                                     88.3%;
                                                                                                                                                                                                                                                                                                                                       sequence is a human olfactory receptor
                                                                                                                                                                                                                                         14;
                                                                                                                                                                                                                                                    Score 1490;
Pred. No. 6.
                                                                                                                                                                                                                                           Mismatches
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.2e-166;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                for determining the receptors, and can b faculties of differe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-OCT-2000; 2000WO-US27582.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; olfactory receptor; OR; primary scent determination; secondary scent determination; polypeptide library; odour receptor; scent profile; scent fingerprint; scent representation.
                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                        (also called a scent fingerprint or scent profile), which may re-create and edit scents. Libraries of olfactory receptors ar
                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Page 839-840; 1857pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  sensation
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24-FEB-2000; 2000US-0184809
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                                         SFLEIWYVTVTIPKMLAGFIGSKENHCQLISFEACMTQLYFFLGLGCTECVLLAVMAYDR 127
                                                                                                          GRVSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYFFLANM
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                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DIGISCENTS.
YEDA RES & DEV CO LTD.
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                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Smith
                                                                                                                                                                                                        AA,
                                                                                                                                                                                                                                            g the interaction pattern of a composition with the can be used for determining differences in the olfactory
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                                                                                                                                                 86.2%;
                                                                                                                                                                                                                                  individuals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lancet D,
                                                                                                                                    14;
                                                                                                                                                                                                                                                                       Libraries of olfactory receptors are useful
                                                                                                                                  Score 1454; DB 22;
Pred. No. 1e-161;
Wismatches 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               327
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glusman G,
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Score 1395; DI Pred. No. 8.6e 14; Mismatches

DB 22; }.6e-155; nes 32;

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RESULT
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                                                                    The present sequence is an olfactory receptor which is encoded by one of a number of novel polynucleotides. The polynucleotides can be used in screening for olfactory agonists and antagonists. The methods allow for the determination of primary scents and the identification of the odour receptors used to detect these primary scents. The methods also enable determination of secondary scents and the identification of combinations of odour receptors that are involved in detecting such secondary scents. This enables the construction of a scent representation (also called a scent fingerprint or scent profile), which may be used to re-create and edit scents. Libraries of olfactory receptors are useful for determining the interaction pattern of a composition with the receptors, and can be used for determining differences in the olfactory
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; Page 846-847; 1857pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New polynucleotides which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-290713/30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bellenson J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-OCT-2000; 2000WO-US27582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200127158-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       scent profile; scent fingerprint;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   secondary scent determination;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human olfactory receptor polypeptide,
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                                                                        Proteins AAR48685-R48758 represent a range of G-protein coupled receptor proteins selected from cAMP, adenosine, muscarinic acetylcholine, adrenergic, thrombin, endothelin, bombesin, endocrine, rhodopsin, opsin, odorant, cytomegaloviral and other G-protein coupled receptors. The
  binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G-protein coupled
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  receptor proteins were used to design polypeptides, pref. based on the transmembrane domains, for use in G-protein coupled receptor ligand binding assays. The polypeptide fragments retain biological activity
                                                                                                                                                                                                           Disclosure; Page 120; 160pp;
                                                                                                                                                                                                                                                        Polypeptides of G-coupled receptor proteins (GPRs) - useful binding GPR ligands or modulating GPR binding
                                                                                                                                                                                                                                                                                                                                        WPI; 1994-101120/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               psychotic disorder; schizophrenia; dopamine; cAMP; adenosine; thrombin muscarinic acetylcholine; adrenergic; endothelin; bombesin; endocrine;
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                                                                                                                                                                                                              schizophrenia; dopamine; cAMP; adenosine; throm muscarinic acetylcholine; endothelin; bombesin; odorant; cytomegalovirus; serotonergic.
                                                           09-SEP-1993;
10-SEP-1992;
                                                                                                                                                                                                                                            G-protein coupled receptor;
                                                                                                                                                                                                                                                                 G-protein
                   Murphy
                                                                                                                                                               Misc-difference
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                                        NEW YORK STATE
                                                           93US-0118270
92US-0943236
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                                                                                                                                                               Location/Qualifiers 9
                                                                                                                                                    /note-
                                                                                                                                                                                                                                                                odorant receptor
                                                                                                                                                                                                                                                                                                                             peptide;
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91.7%;
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Pred. No. 2.1e-153;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     odorant, cytomegaloviral and other GPR proteins. The receptor proteins were used to design polypeptides, pref. based on the transmembrane domains, for use in G-protein coupled receptor ligand binding assays. The polypeptide fragments retain biological activity such as binding a GPR ligand or modulating GPR ligand binding to a GPR (see AAW02747-W02999 for examples of polypeptide fragments). The polypeptide fragments can be used in compositions for treating subjects suffering from a pathology related to a GPR abnormality e.g. a psychotic disorder such as schizophrenia.
                                                                                                     Human; olfactory receptor; OR; primary scent determination; secondary scent determination; polypeptide library; odd scent profile; scent fingerprint; scent representation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proteins AAW02657-W02730 represent a range of G-protein coupled receptor (GPR) proteins selected from cAMP, adenosine, muscarinic acetylcholine, adrenergic, thrombin, endothelin, bombesin, endocrine, rhodopsin, opsin,
                                  19-APR-2001
                                                         WO200127158-A2
                                                                                Homo
          06-OCT-2000; 2000WO-US27582
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les 276; Conserv
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treating
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                                                                                                                                                                                                                             Protein;
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91.7%;
                                                                                                                                                       polypeptide,
                                                                                                                                                                                                                              278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1382.5; DB 17; Length Pred. No. 2.1e-153; 4; M1smatches 6; Indels
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (YEDA )
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Page 1102-1103; 1857pp; English
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24-FEB-2000; 2000US-0184809
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                                                                                                   olfactory receptor; OR;
ary scent determination;
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                                                                       rmination; polypeptide library;
fingerprint; scent representati
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Pred. No. 1.2e-137;
13; Mismatches 22;
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and antagonists -
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human genes. It was used as a query sequence in a database search of olifactory receptor (OR) like sequences. The invention relates to isolated polynucleotides encoding polypeptides involved in olifactory sensation. The polynucleotides can be used in screening for olfactory agonists and antagonists. The methods allow for the determination of primary scents and the identification of the odour receptors used to detect these primary scents. The methods also enable determination of secondary scents and the identification of combinations of odour receptors that are involved in detecting such secondary scents. This enables the construction of a scent representation (also called a scent fingerprint or scent profile), which may be used to re-create and edit scents. Libraries of olfactory receptors are useful for determining the interaction pattern of a composition with the receptors, and can be used for determining differences in the olfactory faculties of different
   18-DEC-2001
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                                                        AAU24722
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24-FEB-2000; 2000US-0184809
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polynucleotides which encode polypeptides involved in sation for identifying olfactory agonists and antagoni:
                                                                                                                                                                                                         GAVMRIPSAAGRHKAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIV
                                                                                                                              PLFNPIIYCLRNQDVKRALRRTLHLAQDQEANTNKGSK
                                                                                                                                                                                          gavmhipsaagrykafstcashfnvviifyaasifiyarpkalsafdtnklvsvlyaviv
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                                                                                                                                                                                                                                                                                                                                                                                      IAIRNHPTLHKPMYFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLY 107
                                                          standard;
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(first entry)
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Best Local Similarity
Matches 181; Conserv
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24-MAR-2000;
12-APR-2000;
24-APR-2000;
26-MAY-2000;
23-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                   The invention relates to nucleic acids encoding human olfactory receptors, OR, (a G protein-coupled receptor, GPCR). The OR's specifically recognise molecules, odourants, that elicit specific olfactory sensation. The human olfactory receptors and polynucleotides encoding them are useful for screening a library of chemical compounds for compounds that are involved in olfactory sensation. Modulators of their activity are useful for pharmacological and genetic modulation of olfactory signalling pathways. Therefore, they can be used in the food, pharmaceutical and cosmetic industries to customize odours and fragrances. The present sequence is a human olfactory receptor of the
                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cosmetic industries to customise odours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids encoding human olfactory G protein-coupled receptors, useful for screening for compounds involved in olfactory sensation, where the compounds can be used in the food, pharmaceutical and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
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07-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                          invention
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    178
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                                                                        MAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTINHF 182
                                                                                                                                                                                                         RNHS-GRVSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPMYF 62
                            FCDVSPLLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRHKA
                                                           maydrylaicgpllypslmpsslatrlaaaswgsgffssmmkllfisqlsycgpniinhf
                                                                                                                                                FLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAV 122
                                                                                                                                                                            rnlsgghveefvlvgfpttpplqlllfvlffaiylltllenalivftiwlapslhrpmyf 61
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bB; AAS42415.
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dditive; cosmetic; fragrance; pharmaceutical additive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page
                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0192033.
2000US-0199474.
2000US-019935.
2000US-0207702.
2000US-0213849.
2000US-0230732.
2000US-0230732.
2001US-0266862.
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Pred. No. 3.8e-105;
5; Mismatches 72;
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Best Local
                                                                                                                                                                                   Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; olfactory receptor; OR; primary scent determination; secondary scent determination; polypeptide library; odour r scent profile; scent fingerprint; scent representation.
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                                                                                                                                                                                                                                                                                                           Sequence
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24-FEB-2000; 2000US-0184809
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                          FLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAV 122
                                                                          keafrktvmgrchyprd 314
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:: [H::]]] : [H:]]]::
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                                                                                                                                                                             Score 970.5; DB 22
Pred. No. 4.9e-105;
4; Mismatches 70;
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NO:
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ARGESULT 7
ARGESULT 7
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ID AAGG
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ARGES 27
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NOV:
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                                                                                                                                                                                                                                                                                                                                          31-JUL-2000;
21-DEC-2000;
08-JAN-2001;
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27-JAN-2000;
27-JAN-2000;
27-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       osteopathic; gene therapy; odorant receptor; olfactory G-protein coupled receptor; GPCR; neuro-olfactory; trau
                                                                                     New NOVX polypeptides and polynucleotides, preventing a syndrome associated with a hun of the neuro-olfactory system), as well as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JAN-2000;
27-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          neoplastic disorder; cancer; adenocarcinoma; lymphoma; prostate
uterus cancer; immune response; AIDS; asthma; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOV; olfactory; cytostatic; immunomodulator; vulnerary; anti-HIV; antiastimatic; antiinflammatory; gastrointestinal; neuroprotective;
                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JAN-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    multiple sclerosis; Albright
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                                                                                                                                                                                                                                                                                                    CURAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0178413.
2000US-0178414.
2000US-0180634.
2000US-0220516.
2000US-0221408.
                                             Page 58;
                                                                                                                                                                                                                             Macdougall
                                                                                                                                                                                                                                                     Padigaru M,
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2000US-0257599.
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2000US-0178371
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as in
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ıman disease
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                                                                                          gene
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                                                                                                             treating or (e.g. disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 receptor;
                                                                                                                                                                                                                                                     Vernet CAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer;
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The

present invention relates to novel human NOVX proteins and coding

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RESULT
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             useful in treating cancer e.g. adenocarcinoma, lymphoma, prostate cancer, uterus cancer, inappropriate immune response, AIDS, asthma, Crohn's disease, multiple sclerosis or Albright hereditary osteodystrophy. The coding sequences are also useful in gene therapy for treating the above conditions. The present protein was used in a sequence homology alignment to illustrate the present invention.
                                                                                                                                                                         Human; olfactory receptor; OR; primary scent determination; secondary scent determination; polypeptide library; odour receptor; scent profile; scent fingerprint; scent representation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequences, where X is any number from 1 to 18 (see AAH75716-AAH75733, AAG64400 and AAG66322-AAG66338). NOVX are members of the odorant/olfactory receptor (OR) family, which are G-protein coupled receptors (GPCRs). The NOVX proteins and coding sequences are useful a therapeutics, particularly in the manufacture of a medicament for treating a syndrome associated with a human diseases/disorders of the neuro-olfactory system, e.g. those induced by trauma, surgery and/or
 (DIGI-) DIGISCENTS
                         08-OCT-1999;
24-FEB-2000;
                                                                   06-OCT-2000; 2000WO-US27582
                                                                                                                         WO200127158-A2
                                                                                                                                                                                                                                 Human olfactory receptor polypeptide, SEQ
                                                                                                                                                                                                                                                                                          AAG71414;
                                                                                                                                                                                                                                                                                                                    AAG71414 standard;
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                                                                                              19-APR-2001
                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                               30-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neoplastic disorders. Furthermore, the coding sequences and proteins are
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MERRNHSGRVSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPM
                                                                                                                                                                                                                                                                                                                                                                                                               DVKRALRR 308
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                           2000US-0184809
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                                         99US-0158615
                                                                                                                                                                                                                                                                                                                    Protein;
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56.8%;
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Pred. No. 1.6e-103;
4; Mismatches 72;
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allow for the determination of primary scents and the identification of the odour receptors used to detect these primary scents. The methods also enable determination of secondary scents and the identification of combinations of odour receptors that are involved in detecting such secondary scents. This enables the construction of a scent representation (also called a scent fingerprint or scent profile), which may be used to re-create and edit scents. Libraries of olfactory receptors are useful for determining the interaction pattern of a composition with the receptors, and can be used for determining differences in the olfactory faculties of different individuals.
                                                                                                                                                                                                                                 The present sequence is an olfactory receptor which is encoded by one of a number of novel polynucleotides. The polynucleotides can be used in screening for olfactory agonists and antagonists. The methods
                                                                                                                                                                                                                                                                                                                 Claim
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                                                                                                                                                                                                  YFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLL 120
                                                                                                                                                                                                                           melengt-rvtkfilvgfpgslsmraamfliflvayiltvaenviiillvlgnrplhkpm 59
                                                        DVKRALRR 308
                                                                                                                                                                      AVMAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTIN
                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                        56.8%; Score 957.5; 56.8%; Pred. No. 1.6
                                                                                                                                                                                                                                                               54;
                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                1.6e-103;
nes 72;
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                                                                                                                                 240
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Human; olfactory receptor; OR; primary scent determination; secondary scent determination; polypeptide library; odour r scent profile; scent fingerprint; scent representation.
                                                                      Human
                                                                                                                                    AAG72361 standard; Protein; 311
                                                                                         30-JUL-2001
                                                                      OR-like
                                                                                         (first entry)
                                                                     polypeptide
                                                                     query
                                                                     sequence,
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Homo sapiens

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RESULT 1
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primary scents. The methods also enable determination of secondary scents and the identification of combinations of odour receptors that are involved in detecting such secondary scents. This enables the construction of a scent representation (also called a scent fingerprint or scent profile), which may be used to re-create and edit scents. Libraries of olfactory receptors are useful for determining the interaction pattern of a composition with the receptors, and can be used for determining differences in the olfactory facilities.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is a polypeptide encoded by one of 344 newly mined human genes. It was used as a query sequence in a database search of olfactory receptor (OR)-like sequences. The invention relates to isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polynucleotides encoding polypeptides involved in olfactory sensation. The polynucleotides can be used in screening for olfactory agonists and antagonists. The methods allow for the determination of primary scents and the identification of the odour receptors used to detect these
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24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New polynucleotides which encode polypeptides involved in olfactory sensation for identifying olfactory agonists and antagonists -
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AAG71590 standard; Protein;
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evkealkk
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                                                                                         DVKRALRR 308
                                                                                                                                            KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
                                                                                                                                                                                                                                                                                                                                   YFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLL
                                                                                                                              aamaydryvaicrplhyptimshglcfrlalgswaigfgislakiyfisclsfcgpnvin
                                                                                                                                                                                                                                                                                                        yfflanlsfletwyisvtvpkllfsfwsvnns----isftlcmiqlyffialmctecvll
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                                                                          301
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56.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                         54;
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 957.5; DB 22;
Pred. No. 1.6e-103;
54; Mismatches 72;
 324
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                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence is an olfactory receptor which is encoded by one of a number of novel polynuclectides. The polynuclectides can be used in screening for olfactory agonists and antagonists. The methods allow for the determination of primary scents and the identification of the odour receptors used to detect these primary scents. The methods also enable determination of secondary scents and the identification of also enable determination of secondary scents and the identification of
                                                                                                                                                                                                                                                                                                                                                                                                              combinations of odour receptors that are involved in detecting such secondary scents. This enables the construction of a scent representation (also called a scent fingerprint or scent profile), which may be used to re-create and edit scents. Libraries of olfactory receptors are useful for determining the interaction pattern of a composition with the receptors, and can be used for determining differences in the olfactory faculties of different individuals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; olfactory receptor; OR; prisecondary scent determination; poscent profile; scent fingerprint;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New polynucleotides which encode polypeptides involved in olysensation for identifying olfactory agonists and antagonists
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24-FEB-2000; 2000US-0184809
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 241
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                                                                                                                                                                                                                                                               1 MERRNHSGRVSEFVLLGFPAPAPLRVLLFFLSLLDYVLVLTENMLIIIAIRNHPTLHKPM
                                                 HFFCDVSPLLNLSCTDMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSAAGRH
                                                                                                                                                             yfflshlsflemwyvtvispkmlvdfl----shdksisfngcmtqlyffvtfvcteyill
                                                                                                                                                                                                                               levdnht-vttrfillgfptrpafqllffsiflatylltllenlliilaihsdgqlhkpm
KAFSTCASHLTVVIIFYAASIFIYARPKALSAFDTNKLVSVLYAVIVPLFNPIIYCLRNQ
                                                                                                aimafdryvaicnplrypvimtnqlcgtlaggcwfcglmtamikmvfiaqlhycgmpqin
                                                                                                                                AVMAYDRYVAICHPLHYPVIVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCGPNTIN
                                                                                                                                                                                YFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLL
                              hy fc {\tt displlnvs} ce {\tt dasqaemvd} ff {\tt lalmviaipl} cvv{\tt vasyaailatilrips} aqgrq
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                                                                                                                                                                                                                                                                                              56.0%; Score 944.5; DB 22; 57.2%; Pred. No. 5.8e-102; tive 54; Mismatches 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1857pp; English.
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polypeptide library; odour r
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                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is a polypeptide encoded by one of 344 newly mined CC human genes. It was used as a guery sequence in a database search of CC olfactory receptor (OR)-like sequences. The invention relates to isolated CC polynucleotides encoding polypeptides involved in olfactory sensation. CC The polynucleotides can be used in screening for olfactory agonists and CC antagonists. The methods allow for the determination of primary scents and CC antagonists. The methods also enable determination of secondary scents CC and the identification of the odour receptors used to detect these CC primary scents. The methods also enable determination of secondary scents are CC involved in detecting such secondary scents. This enables the CC construction of a scent representation (also called a scent fingerprint CC or scent profile), which may be used to re-create and edit scents. CC Libraries of olfactory receptors are useful for determining the CC interaction pattern of a composition with the receptors, and can be considered to the construction of differences in the olfactory faculties of different consistion with the receptors.
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Best Local Similarity
Matches 178; Conserv
                                                                                                                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides which encode polypeptides involved in olfactory sensation for identifying olfactory agonists and antagonists -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (VEDA ) YEDA RES & DEV CO LTD.
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24-FEB-2000; 2000US-0184809.
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                                                                                                                                                                                                                                                                                                                                                                                                                               individuals. .
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61 YFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLL 120
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                                                     kafstcashltvvilfysmtlftyarpklmyaynsnkvvsvlytvivpllnpiiyclrnh 300
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                                                                                                                                                                                        56.0%; Score 944.5; DB 22; 57.2%; Pred. No. 5.8e-102; tive 54; Mismatches 74;
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